

```
In[*]:= SetDirectory["C:\\drorbn\\AcademicPensieve\\Projects\\BabyDoPeGDO"];
Once[Get@"/Profile/Profile.m"];
<< Engine.m
```

This is Profile.m of <http://www.drorbn.net/AcademicPensieve/Projects/Profile/>.

This version: April 2020. Original version: July 1994.

```
In[*]:= $k = 1;
```

```
In[*]:= FullSimplify /@ Zip_{x,y} [ξ²/2 + η²/2, E[1, a x²/2 + b x y + c y²/2 + t x + s y, eSeries[0]]]
```

$$\text{Out[*]} = \mathbb{E} \left[\frac{1}{\sqrt{1 - b^2 + a(-1 + c) - c}}, -\frac{(-1 + a) s^2 - 2 b s t + (-1 + c) t^2}{2 a (-1 + c) - 2 (-1 + b^2 + c)}, \epsilon \text{Series}[0, 0] \right]$$

```
In[*]:= inter = FullSimplify /@ Zip_{y} [η²/2, E[1, a x²/2 + b x y + c y²/2 + t x + s y, eSeries[0]]]
```

$$\text{Out[*]} = \mathbb{E} \left[\frac{1}{\sqrt{1 - c}}, -\frac{s^2 + 2 (b s + t - c t) x + (a + b^2 - a c) x^2}{2 (-1 + c)}, \epsilon \text{Series}[0, 0] \right]$$

```
In[*]:= FullSimplify /@ Zip_{x} [ξ²/2, inter]
```

$$\text{Out[*]} = \mathbb{E} \left[\frac{\sqrt{-1 + c}}{\sqrt{1 - c} \sqrt{-1 + a + b^2 + c - a c}}, -\frac{(-1 + a) s^2 - 2 b s t + (-1 + c) t^2}{2 a (-1 + c) - 2 (-1 + b^2 + c)}, \epsilon \text{Series}[0, 0] \right]$$